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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/679,320	10/04/2000	Herschel Clement Burstyn	SAR 13978	7581

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NEWARK, NJ 07102

EXAMINER
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ARANI, TAGHI T

ART UNIT	PAPER NUMBER
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2131

DATE MAILED: 06/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/679,320

Applicant(s)

BURSTYN, HERSCHEL CLEMENT

Examiner

Taghi T. Arani

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 15 March 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 June 0204 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. Claims 1-23 have been examined and are pending.

#### **Continued Examination Under 37 CFR 1.114**

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 03/15/2005 has been entered.

However, in the REMARKS filed 03/15/2005, Claims 1-23 are pending while in the listing of the claims, claim 23 is missing. The Examiner considered claim 23 from the listing of the claims filed in the after final amendment on 6/10/2004.

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. **Claims 1, 5, 10, 11, 12, and 23** are rejected under 35 U.S.C. 103(a) as being unpatentable over Copeland U.S. Patent No. 5,668,303) and further in view of ZENG US (Pub. No. 2001/016058.

**Referring to claim 1**, Copeland teaches a method for distorting a recording of projected images, comprising the steps of:

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imposing modulated entities on video content of video source material [column 2, lines 18-22];

demodulating the modulated entities [column 3, lines 1-11]; and

projecting the video content to provide the projected images [column 2, line 11-12].

It is noted (as persuasively argued by the Applicant) that Copeland is silent in disclosing that “the modulated entities being incompatible with the video content”.

The Specification (page 7) defines the term “incompatible” entities with the video content to include “artifacts that are incompatible with the video content”. The specification further states that the entities can be “any realizable image, including a unique watermark”.

However, ZENG teaches embedding modulated entities being incompatible with the content in an image [see Fig. 1a and related text, a logo image 16 is modulated and embedded in an image 12, see also page 1, paragraphs 0009 and 031].

Therefor, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply ZENG’s teachings of modulating and embedding incompatible entities to the method of Copland, such that Copeland’s method would be able to establish a counterfeit ownership claim while the original un-watermarked image is not needed in the detection process [ZENG, page 1, paragraphs 0005-0006].

**Referring to claim 5**, Copeland teaches the method of claim 1 further comprising the step of encoding modulation information corresponding to the modulated entities, wherein the projecting step further includes the step of decoding the modulation information [column 3, lines 54-56].

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**Referring to claim 10**, Copeland teaches the method of claim 1 wherein the video source material comprises film [column 4, lines 59-63].

Referring to claim 11, Copeland teaches the method of claim 5 wherein the video source material comprises film, the encoding step including storing the modulation information on the film [column 4, lines 54-58].

**Referring to claim 12**, Copeland teaches the method of claim 5 further comprising the step of varying the modulation information with respect to the video source material [column 2, lines 45-47].

**Referring to claim 23**, Copeland teach the method of claim 1 wherein the projecting step includes the further step of imposing a recording device dependent interference on the projected video content [column 2, lines 19-21].

4. **Claims 2-4, and 6-9** are rejected under 35 U.S.C. 103(a) as being unpatentable over Copeland and ZENG as applied to claim 1 above and further in view of Video Scrambling and Descrambling for Satellite and Cable TV to Graf et al.

**Referring to claim 2**, Copeland as modified teach all limitations of claim 2 except wherein the step of imposing modulated entities includes the steps of:

separating the video content into selected colors;

varying at least one of a plurality of parameters of at least one of the selected colors.

However, Graf et al. teach the method wherein the step of imposing modulated entities includes the step of varying at least one of a plurality of parameters of at least one of the selected colors [page 3, Chroma Transmission, lines 3-6].

Graf et al. do not explicitly teach separating the video content into selected colors.

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Examiner takes Official Notice that separating the video content into selected colors is conventional and well known.

Therefor, it would have been obvious at the time the invention was made to one of ordinary skill in the art to explicitly employ color separators in Graf et al. since Examiner takes Official Notice that separating the video content into selected colors is conventional and well known.

It would have been further obvious to one of ordinary skill in the art at the time the invention was made to apply Graf et al.'s teachings of modulating to the system and method of Copeland as modified , such that modified Copeland's system would include a color separator with the ability to vary a parameter of a selected color. One would have been motivated to modify the modified Copeland's system as such in order to alter the picture to produce an unwatchable result [page 3, Scanning, lines 16-18].

**Referring to claim 3**, Copeland as modified teach the method of claim 2 wherein the at least one parameter is selected from the group comprising intensity, frequency, gain, brightness, luminance, duty cycle, amplitude, and wavelength [page 3, Chroma Transmission, lines 3-6 of Graf et al.].

**Referring to claim 4**, Copeland as modified teach the method of claim 3 further comprising the step of selecting a space for modulating the video content [column 2, lines 48-61 of Copeland].

**Referring to claim 6**, Copeland as modified teach the method of claim 4 wherein imposing the modulated entities further includes the step of modulating the video in the selected space [column 2, lines 48-61 of Copeland].

**Referring to claim 7**, Copeland as modified teach the method of claim 3 wherein the parameter comprises intensity, the varying step including the step of determining the intensity as a function of position on the video content [page 3, Chroma Transmission, lines 3-5 of Graf et al.].

**Referring to claim 8**, Copeland as modified teach the method of claim 3 wherein the parameter comprises duty cycle, the varying step including the step of determining the duty cycle as a function of position on the video content [column 2, lines 48-61 of Copeland].

**Referring to claim 9**, Copeland as modified teach the method of claim 3 wherein the varying step includes the step of determining a value of the parameter as a function of position on the video content, the function describing a modulation envelope, the modulation envelope decreasing a magnitude of the parameter to correct an alignment error [column 2, lines 45-47 of Copeland].

**5. Claims 13-22** are rejected under 35 U.S.C. 103(a) as being unpatentable over Copeland (U.S. Patent No. 5,668,603) and ZENG (U.S. Pub. No. 2001/016058) in view of Guido et al. (U.S. Patent No. 5,924,013).

**Referring to claim 13**, Copeland teach video source material for a projection system, comprising:

modulated entities [column 2, lines 18-22]; and

It is noted that Copeland (as persuasively argued by the Applicant) fails to disclose the modulated entities incompatible with a video content of the video source material.

Copeland does not teach a video source material for a projection system, comprising:

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selectively deliverable modulation information, wherein the projection system demodulates the modulated entities according to the modulation information and introduces a recording device dependent interference.

However, in an analogous art, ZENG teaches embedding modulated entities being incompatible with a video content of the video source material [see Fig. 1a and related text, a logo image 16 (entities incompatible) is modulated and embedded in an image 12, see also page 1, paragraphs 0009 and 031 to ZENG].

Furthermore, Guido et al. teach a video source material for a projection system, comprising:

selectively deliverable modulation information, wherein the projection system demodulates the modulated entities according to the modulation information and introduces a recording device dependent interference [column 4, lines 54-58 to Guido et al.].

Therefor, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply ZENG's teachings of modulating and embedding incompatible entities to the system of Copeland, such that Copeland's system would be able to establish a counterfeit ownership claim while the original un-watermarked is not required in the detection process [ZENG, page 1, paragraphs 0005-0006].

It would have been further obvious to one of ordinary skill in the art at the time the invention was made to apply Guido et al.'s teaching of receiving downloadable information from a remote source to the modified system of Copeland, such that the modified Copeland's system would scramble the modulated information in figure 1 and descramble the demodulated information in figure 2 if figure 2 contains a valid security code key. One would have been



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motivated to modify the modified Copeland's system as such in order to provide a secure transmission of information over insecure networks.

**Referring to claim 14**, Copeland as modified teach the video source material of claim 13 wherein the modulated entity is a shape imposed on the video content of the video source material, the shape being color modulated as a function of position on the video content [column 2, lines 48-51 of Copeland].

**Referring to claim 15**, Copeland as modified teach the video source material of claim 14 wherein the function decreases a magnitude of a modulated parameter in proximity to an edge of the shape [column 2, lines 12-14 of Copeland].

**Referring to claim 16**, Copeland as modified teach the video source material of claim 13 wherein the modulated entity includes a spatially modulated entity [column 4, lines 53-57 of Copeland].

**Referring to claim 17**, Copeland teaches a system for distorting a recording of projected images, comprising:

video source material having modulated entities [column 2, lines 18-22]

a projector system responsive to the video source material to provide the projected images, the projector system including:

a modulator responsive to the video source material, the modulator imposing a recording device dependent interference on the projected images [Figure 1, DATA MODULATOR 22].

Copeland (as persuasively argued) does not teach the modulated entities incompatible with a content of the video source material;

Copeland does not teach a system for distorting a recording of projected images, comprising selectively deliverable modulation information; and

the projector system including a demodulator responsive to the video source material for demodulating the modulated entities according to the selectively deliverable modulation information.

However, in an analogous art, ZENG teaches embedding modulated entities being incompatible with a content of a video source material [see Fig. 1a and related text, a logo image 16 (incompatible with the content) is modulated and embedded in the image 12, see also page 1, paragraphs 0009 and 031 to ZENG].

Furthermore, Guido et al. disclose a system for distorting a recording of projected images, comprising selectively deliverable modulation information [column 4, line 65- column 5, line 1 to Guido et al.]; and

the projector system including a demodulator responsive to the video source material for demodulating the modulated entities according to the selectively deliverable modulation information [column 4, lines 54-58 ti Guido et al.].

Therefor, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply ZENG's teachings of modulating and embedding incompatible entities to the system of Copland, such that the Copeland's system would be able to establish a counterfeit ownership claim while the original un-watermarked is not required in the detection process [ZENG, page 1, paragraphs 0005-0006 to ZENG].

It would have been further obvious to one of ordinary skill in the art at the time the invention was made to apply Guido et al.'s teaching of receiving downloadable information from

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a remote source to the modified system of Copeland, such that the modified Copeland's system would scramble the modulated information in figure 1 and descramble the demodulated information in figure 2 if figure 2 contains a valid security code key. One would have been motivated to modify the modified Copeland's system as such in order to provide a secure transmission of information over insecure networks.

**Referring to claim 18**, Copeland as modified teaches the system of claim 17 wherein the video source material includes film and wherein the modulation information is encoded on the film [column 4, lines 54-63 of Copeland].

**Referring to claim 19**, Copeland as modified teaches the system of claim 17 wherein the modulated entities are color modulated and the modulator varies a projection rate of the modulated color [column 4, lines 54-63 of Copeland],

**Referring to claim 21**, Copeland as modified teaches the system of claim 17 wherein the projection system includes an electronic projection system and the modulation information includes information downloadable from a remote source [figure 1 of Guido et al.].

**Referring to claim 22**, Copeland as modified teaches the system of claim 17 wherein the modulation information includes packetized information [column 2, lines 23-26 of Copeland].

6. **Claim 20** is rejected under 35 U.S.C. 103(a) as being unpatentable over Copeland, ZENG and Guido et al. as applied to claim 17 above and further in view of Video Scrambling and Descrambling for Satellite and Cable TV to Graf et al.

Copeland as modified teaches all limitations of claim 20 except wherein the modulated entities are spatial entities, the projection system including:

a scanner operable to scan a white light strip over a frame;

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a color separator operable to separate the white light strip into color light strips; and  
a separator operable to separate the modulated entities into component colors,  
wherein the modulator modulates the component colors of the spatial entities over  
at least one of the color light strips.

However, Graf et al. teach the projection system wherein the modulated entities  
are spatial entities, the projection system including:

a scanner operable to scan a white light strip over a frame [page 3, Scanning];  
a color separator operable to separate the white light strip into color light strips  
a separator operable to separate the modulated entities into component colors, wherein  
the modulator modulates the component colors of the spatial entities over at least one of the color  
light strips [page 3, Chroma Transmission, lines 3-6].

Therefor, it would have been obvious to one of ordinary skill in the art at the time the  
invention was made to apply Graf et al.'s teachings of modulating to the modified system of  
Copeland, such that the modified Copeland's system would include a color separator with the  
ability to vary a parameter of a selected color. One would have been motivated to modify the  
modified Copeland's system as such in order to alter the picture to produce an unwatchable  
result [Graf et al., page 3, Scanning, lines 16-181].

### Conclusion

7. Prior arts made of record, not relied upon:

USP 6,438,251 to Yamaguchi discusses **additional** information, composed of characters,  
images, voice, etc., is converted into two-dimensional codes and then converted into a visible  
additional image to be embedded. The additional image is embedded in a full-color main image

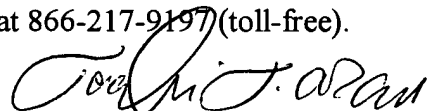
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in a state of invisibility to produce a composite image. The composite image is recorded on a non-electronic medium such as paper or on an electronic medium, such as a memory on a personal computer, over the Internet. The embedded additional image is extracted from the composite image recorded on the recording medium and the additional information is reproduced.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Taghi T. Arani whose telephone number is (571) 272-3787. The examiner can normally be reached on 8:00-5:30 Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh can be reached on (571) 272-3795. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Taghi T. Arani, Ph.D.  
Examiner  
Art Unit 2131

May 27, 2005